

**PLANETARY SCIENCE RESEARCH DISCOVERIES: AN ON-LINE MAGAZINE OF IDEAS AND INSIGHTS at <http://www.soest.hawaii.edu/PSRdiscoveries>.**

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*Planetary Science Research Discoveries (PSRD)* is an educational site on the world wide web devoted to sharing the discoveries being made by planetary scientists through the research programs sponsored by NASA's Office of Space Science (OSS). Its familiar magazine format, clear text, and eye-catching graphics are designed primarily for teachers, students, and the general public to advance and communicate scientific knowledge and understanding as detailed in the NASA Strategic Plan. All planetary scientists are extended an opportunity to share ideas and discoveries from published research in the pages of *PSRD*. All articles are reviewed carefully for clarity and content to make science more accessible to a wide audience of nonscientists. New issues are posted monthly, and past issues are archived on-line. The site can be found at <http://www.soest.hawaii.edu/PSRdiscoveries>.

**Motivation for creating *PSRD***

The main goal of *PSRD* is to stimulate interest in planetary exploration among teachers, students, and the general public. Planetary exploration never fails to stir the imaginations of students. Teachers regularly are looking for exciting resources to bring science and math into their classrooms, and a growing number are looking for resources on-line. Planetary exploration can even kindle a spark in adults who generally are more concerned with their jobs, their company's possible downsizing, raising their children, and the success of their local NFL or NBA team. The interdisciplinary nature of planetary science makes it especially suited for raising the scientific literacy of the public. A story like the possible evidence for fossil life in ALH 84001 includes chemistry, biology, geology, and physics to explain the rock, how it got here, the environment on ancient Mars, and the nature of microorganisms. A second goal of *PSRD* is to pay back the public who funds our research. They paid for it, why not tell them what we found out? One can argue that our research is not done until it has been communicated to the general public. A third objective is to help advance the goals for edu-

cation and outreach put forward by NASA and OSS. For example, the NASA Strategic Plan states, "We will communicate widely the content, relevancy, and excitement of NASA's missions and discoveries to inspire and to increase understanding and the broad application of science and technology." Space exploration needs continued, and perhaps passionate, public support to maintain any reasonable level of funding. The more we convey the excitement and relevancy of planetary science, the more inclined the public will be to support it with their dollars.

**How *PSRD* operates**

*PSRD* is a joint effort of OSS, Hawai'i Space Grant Consortium, and the University of Hawai'i's School of Ocean and Earth Science and Technology (SOEST) and Hawai'i Institute of Geophysics and Planetology, and managed by the two authors. We have developed publication policies aimed at preventing the spread of wacky ideas, yet allowing exciting new ideas to appear. The key requirement of every article in *PSRD* is that the work be published or in press in a reputable, refereed journal. Our first three "hot ideas" (the lead story each month), were all published in *Science*. A slight exception to this will be articles written by winners of the Dwornik student paper awards. But even here, a judging panel of eight to ten scientists read the student's abstract and at least three judges saw the student's presentation.

We expect to write many of the articles ourselves based on published research, but we alone do not choose the topics. All our colleagues are enthusiastically invited to submit articles to appear in *PSRD*, or to simply alert us to your published work. We are prepared to provide full-service writing, editing, and HTML coding for you with the graphics and images you provide. If needed, we will create additional art work. Each article in *PSRD* is reviewed by the researchers whose work is being featured as well as by our board of editors, with emphasis on accuracy, clarity, and ease of navigation (loading time, layout, links, etc.). The editorial board consists of Gordon McKay (Johnson Space Center),

Karen Meech (Institute for Astronomy, University of Hawai'i), Virgil Sharpton (Lunar and Planetary Institute), and Anita Sohus (Jet Propulsion Laboratory).

The *PSRD* editorial board and we decide whether an article is classified as a "hot idea" or a feature. Hot ideas are recent discoveries; features are interesting articles that are probably completely new to our general audience. As a rough guideline, hot ideas either were published in *Science*, *Nature*, *Geophysical Research Letters*, or similar journals, or had an excellent chance of being published in such had the authors chosen to submit them. Some features will also have been published in hot-idea journals, but some time ago. Examples of *PSRD* hot ideas through January, 1997: "Life on Mars?", "Ice on a Bone Dry Moon," and "Mercury Revealed." Features have included "Meteorites from Mars, Rocks from Canada," "Life Underground," and "Rules for Identifying Ancient Life."

*PSRD* also includes a linked glossary, which will expand as the need arises. We will also experiment with animations and more interactive modes of presentation, but not at the expense of content and clarity. As the past-issue archive grows, we will probably install a key-word search mechanism.

#### **Marketing *PSRD*: increasing the number of hits**

A large number of visitors to *PSRD* (especially a large number who stay long enough to actually read more than one page)

helps achieve the goals of the site and will also help raise future funding from private sources. We have taken steps to ensure that the site is recognized by search engines (appears at the top of searches) by inserting descriptions and key words into the HTML code and by prominently placing its mission statements and goals on the top of the first page. As part of our marketing plan we also will be demonstrating *PSRD* at the National Science Teachers Association (NSTA) annual meeting in April, 1997. Last year's NSTA meeting was attended by 17,000 teachers. The site is linked from other educational sites, such as the NSTA homepage, Space Link, and the LPI. We will continue to try to increase readership, so *PSRD* will become an effective and popular education and outreach tool.

#### ***PSRD* in the overall scheme of NASA education and outreach**

*Planetary Science Research Discoveries* on-line magazine can be a vital part of making planetary science accessible to a large audience of nonscientists and, we hope, raising the scientific literacy of the public. NASA and OSS are committed to effective programs of education and outreach and plans for such programs are required in research proposals. A good way to partially fulfill the important education and outreach requirements is to have your discoveries shared on-line with a wide public audience in the pages of *PSRD*.